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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,479	08/23/2001	Yoko Fujiwara	018656-241	8426
7590	09/20/2006		EXAMINER	
Platon N. Mandros BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			BRIER, JEFFERY A	
			ART UNIT	PAPER NUMBER
			2628	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,479

Applicant(s)

FUJIWARA ET AL.

Examiner

Jeffery A. Brier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 37-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 and 37-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 6/7/2006 has been entered.
2. The amendment filed 12/23/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: changing patterns to graphics.

A Machine translation of 2002-150306 which is from priority document 2000-267305 was performed at the PAJ searching site. Paragraph 0037 of this document corresponds to applicants specification at page 11 lines 12-23.

[0037] At step S107, field distinction processing by the field distinction section 173 is performed. Specifically, the field distinction section 173 distinguishes the alphabetic character image section 18 to which an alphabetic character image exists in document image data, and the photograph section 20 in which a photograph (a pattern is included) exists. Since this field distinction approach is a well-known technique, it omits that detailed explanation. Moreover, the field distinction section 173 extracts the alphabetic character image section 18, creates the alphabetic character image data 22 (refer to drawing 6), extracts the photograph section 20, and creates the photograph image data 24 (refer to drawing 7).

This machine translation translated the Japanese document to state "the photograph section 20 in which a photograph (a pattern is included) exists". The dictionary definition of "patterns" and "graphics" are different. See pages 573 and 911 of the enclosed copies of the Second College Edition of The American Heritage Dictionary.

Thus, the change of "patterns" to "graphics" enters new matter into the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

3. Applicant's arguments filed 6/7/2006 have been fully considered but they are not persuasive.

After reconsidering the language discussed during the 5/23/2006 interview, the language currently added to the independent claims do not overcome the outstanding 101 rejection because 1) it is an intended result, 2) does not state how a tangible presentation will be presented to the user, and 3) preempts all substantial uses of the underlying mathematical formula used in the computer program to perform the alleged application of the mathematical formula.

The objection to the specification is maintained because a machine translation of the corresponding Japanese priority document used the word pattern and not graphic and because the dictionary definition of pattern and graphic are different.

Applicants arguments concerning "at least one circuit for" are not persuasive because applicant is claiming one circuit for performing the claimed process and claiming more than one circuit for performing the claimed process. The present claim form claims each circuit of the more than one circuit will be performing the entire claimed process of extracting, generating, reconstructing, and laying out as well as presenting to the user the layout image. Figure 1 only shows 1 circuit for performing the

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claimed functions and applicants specification does not convey using more than one circuit to perform the claimed function and does not convey a presentation of each one of the more than one claimed created layouts to a user.

Double Patenting

4. Claims 40 and 41 are identical. Applicant is advised that should claim 40 be found allowable, claim 41 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-34 and 37-47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant amended claims 1, 9, 17, 27, 32, and 33 to claim "to create a layout image in a computer for presentation of the image to a user". Applicants specification at page 20 line 22 to page 21 line 2 teaches the only way of presenting the image to the user is by printing, thus, the specification does not convey "for presentation of the image to a user".

Claims 32 and 33:

In addition to the above noted problem claims 32 and 33 claim "at least one circuit for" and the specification only describes one circuit 100 for performing the claimed process. The specification at page 21 states:

The components comprising the image processing device and the image processing method of the present invention may be realized by special hardware circuits or programmed computer. Furthermore, when the present invention is realized by programmed computer, the programs which operate the computer may be provided on a computer-readable recording medium (e.g., floppy disk, CD-ROM and the like). In this case a program recorded on a computer-readable recording medium normally is transferred to and recorded on a hard disk. The program also may be provided as independent application software. Furthermore, the program may be incorporated in the software of the computer as one function of the computer.

The specification at page 7 lines 7-11 states:

Image processing device 100 has a filing function for reading a document such as, for example, a newspaper, magazine or the like, extracting necessary document data from the obtained image data, and storing the data as an electronic file.

Figure 1 clearly shows one circuit for performing the claimed method, thus, hardware circuits mentioned on page 21 is directed to the circuits found in figure 1 which shows no more than one circuit for performing all of the claimed function and applicants specification does not convey using more than one circuit to perform the

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claimed function. Additionally applicants specification does not convey how more than one circuit will "create a layout image in a computer for presentation of the image to a user". From the claim more than one circuit will create a presentation of the image to a user, thus, creating more than one presentations to the user and the specification does not convey applicant had possession of a means that creates plural presentations for presentation to the user.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-34 and 37-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-34 and 37-47:

This application is directed to a useful, concrete, and tangible result of printing the layout image, however, these claims are not. These claims are directed to abstract manipulations and proposing an abstract result without providing for a practical application of the claimed process. Claims 1, 9, 17, 27, 32, and 33 all claim "to create a layout image in a computer for presentation of the image to a user ", however, this statement does not claim a practical application of the claimed functions because the term "presentation" is a very broad term. . The CAFC clearly wrote in State Street at

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paragraph 4 *The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility.* These claims are not limited to a practical application such as printing the newly created layout image on a medium by the use of the computer's printer. Applicants' specification at page 4

lines 13-23 states:

This image processing device also may be provided with file generation means for generating an electronic file storing the character code data laid out by the layout means.

This image processing device also may be provided with a printer for printing the character code data laid out by the layout means on a recording substrate.

This image processing device also may be provided with a reader for reading image data to be processed by optically reading an image of a document.

Applicants' specification at page 20 lines 15 to page 21 line 2 states:

The image processing device also may have, in addition to the structure shown in FIG. 1, an interface for sending and receiving data between the image processing device and other information devices. In this way a generated document data 34 (refer to FIG. 11) may be transmitted to another information device such as a computer, printer or the like.

The image processing device also may have, in addition to the structure shown in FIG. 1, a printer engine for printing data on recording substrate such as cut paper, OHP transparencies, roll paper and the like. In this way a generated document data 34 may be printed on recording substrate.

Thus, applicants specification describes practical application for the invention by printing the layout image.

Dependent claims 6-8 and 14-16:

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These dependent claims broadly claim "an electronic file storing the character code data", "a printer for printing the character code data", and "a reader for optically reading an image of a document" however, they do not claim the practical utility of the claimed functions. *State Street Bank & Trust Co. v. Signature Financial Group Inc.* (CA FC) 47 USPQ2d 1596, 1603 (7/23/1998). *AT&T Corp. v. Excel Communications Inc.* (CA FC) 50 USPQ2d 1447. On page 1603 first paragraph the CAFC wrote in *State Street*:

Under *Benson*, this may have been a sufficient indicium of nonstatutory subject matter. However, after *Diehr* and *Alappat*, the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. 7

On page 1603 paragraph labeled [4] the CAFC wrote:

[4] The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See *In re Warmerdam*, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994).

Claims 1-34 and 37-47:

These claims are additionally nonstatutory in view of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility at page 23 because they preempt all general applications of the computer program and its mathematical formula. The specification describes one of the means for performing the claimed functions is a computer program which inherently is mathematical functions which the claim inherently claim. These claims were amended to claim "to create a layout image in a computer for presentation of the image to a user" which applies the inherent mathematical functions to all substantial applications of the mathematical function. The term presentation is a very broad term. The claims are not limited to a substantial application such as printing the newly created layout image on a medium by the use of the computer's printer. Thus, applicants claims when read in light of the specification preempt all substantial uses of the computer program, the software, and the mathematical formula forming applicants invention.

See pages 14, 20, 23, 35, and 59 of the PDF version of the Interim Guidelines.

Pages 14 lines 7-17 states:

The courts have also held that a claim may not preempt ideas, laws of nature or natural phenomena. The concern over preemption was expressed as early as 1852. See *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852) ("A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right."); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 132, 76 USPQ 280, 282 (1948) (combination of six species of bacteria held to be nonstatutory subject matter). Accordingly, one may not patent every "substantial practical application" of an idea, law of nature or natural phenomena because such a patent "in practical effect be a patent on the [idea, law of nature or natural phenomena] itself." *Gottschalk v. Benson*, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

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Page 20 lines 12-16 states:

If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. If the examiner does not find such a practical application, the examiner has determined that the claim is nonstatutory.

Pages 23 states:

3. Determine Whether the Claimed Invention Preempts an Abstract Idea, Law of Nature, or Natural Phenomenon (§ 101 Judicial Exceptions)

Even when a claim applies a mathematical formula, for example, as part of a seemingly patentable process, the examiner must ensure that it does not in reality “seek[] patent protection for that formula in the abstract.” Diehr, 450 U.S. at 191, 209 USPQ at 10. “Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.” Benson, 409 U.S. at 67, 175 USPQ at 675. One may not patent a process that comprises every “substantial practical application” of an abstract idea, because such a patent “in practical effect would be a patent on the [abstract idea] itself.” Benson, 409 U.S. at 71-72, 175 USPQ at 676; cf. Diehr, 450 U.S. at 187, 209 USPQ at 8 (stressing that the patent applicants in that case did “not seek to pre-empt the use of [an] equation,” but instead sought only to “foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process”). “To hold otherwise would allow a competent draftsman to evade the recognized limitations on the type of subject matter eligible for patent protection.” Diehr, 450 U.S. at 192, 209 USPQ at 10. Thus, a claim that recites a computer that solely calculates a mathematical formula (see Benson) or a computer disk that solely stores a mathematical formula is not directed to the type of subject matter eligible for patent protection. If an examiner determines that the claimed invention preempts a § 101 judicial exception, the examiner must identify the abstraction, law of nature, or natural phenomenon and explain why the claim covers every substantial practical application thereof.

On pages 35 and 36 the guidelines states:

v. No Preemption Permitted

Even when a claim applies a mathematical formula, for example, as part of a seemingly patentable process, however, one must ensure that it does not in reality “seek[] patent protection for that formula in the abstract.” Diehr, 450 U.S. at 191, 209 USPQ at 10. One may not patent a process that comprises every “substantial practical application” of an abstract idea, because such a patent “in practical effect would be a patent on the [abstract idea] itself.” Benson, 409 U.S. at 71-72, 175 USPQ at 676; cf. Diehr, 450 U.S. at 187, 209 USPQ at 8 (stressing that the patent

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applicants in that case did “not seek to pre-empt the use of [an] equation,” but instead sought only to “foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process”). Such limitations on process patents are important because without them, “a competent draftsman [could] evade the recognized limitations on the type of subject matter eligible for patent protection.” Diehr, 450 U.S. at 192, 209 USPQ at 10; accord Flook, 437 U.S. at 590, 198 USPQ at 197. Thus, a claim that recites a computer that solely calculates a mathematical formula (see Benson), a computer disk that solely stores a mathematical formula, or a electromagnetic carrier signal that carries solely a mathematical formula is not statutory.

vi. Claim Must Be Considered as a Whole

Only “when a claim containing [an abstract idea] implements or applies that [idea] in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect,” does “the claim satisf[y] the requirements of § 101.” Diehr, 450 U.S. at 192, 209 USPQ at 10.

Pages 58 and 59 states:

ANNEX 5 Mathematical Algorithms

Claims to processes that do nothing more than solve mathematical problems or manipulate abstract ideas or concepts are complex to analyze and are addressed herein.

If the “acts” of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. Benson, 409 U.S. at 71-72, 175 USPQ at 676. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

In practical terms, claims define nonstatutory processes if they:

- consist solely of mathematical operations without some claimed practical application (i.e., executing a “mathematical algorithm”); or
- simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application.

Cf. Alappat, 33 F.3d at 1543 n.19, 31 USPQ2d at 1556 n.19 in which the Federal Circuit recognized the confusion:

The Supreme Court has not been clear . . . as to whether such subject matter is excluded from the scope of § 101 because it represents laws of nature, natural phenomena, or abstract ideas. See Diehr, 450 U.S. at 186 (viewed mathematical algorithm as a law of nature); Gottschalk v. Benson, 409 U.S. 63, 71-72 (1972)

(treated mathematical algorithm as an “idea”). The Supreme Court also has not been clear as to exactly what kind of mathematical subject matter may not be patented. The Supreme Court has used, among others, the terms “mathematical algorithm,” “mathematical formula,” and “mathematical equation” to describe types of mathematical subject matter not entitled to patent protection standing alone. The Supreme Court has not set forth, however, any consistent or clear explanation of what it intended by such terms or how these terms are related, if at all.

Certain mathematical algorithms have been held to be nonstatutory because they represent a mathematical definition of a law of nature or a natural phenomenon. For example, a mathematical algorithm representing the formula $E = mc^2$ is a “law of nature” — it defines a “fundamental scientific truth” (i.e., the relationship between energy and mass). To comprehend how the law of nature relates to any object, one invariably has to perform certain steps (e.g., multiplying a number representing the mass of an object by the square of a number representing the speed of light). In such a case, a claimed process which consists solely of the steps that one must follow to solve the mathematical representation of $E = mc^2$ is indistinguishable from the law of nature and would “preempt” the law of nature. A patent cannot be granted on such a process.

8. A prior art rejection cannot be made because the metes and bounds of the claims are not definite and because the specification does not support the claims. Thus, an indication of allowability would be premature. In *re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions). However, applicant after amending the claims, needs to review the prior art of record since Kurosawa et al, US Patent No. 6,466,954, could be used to reject amended claims because it scans a document and extracts portions of the document for layout processing and displays on a display device the processed document to a user .

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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:00 to 3:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



Jeffery A Brier
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